

Name: _____

Waves Review WKST:

Circle the letter that best completes each statement.

1. An example of a medium for a wave is
A - air B - water C - glass ☒ D - all of the above
2. A medium transfers
A - matter ☒ B - energy C - molecules D - air
3. An ocean wave is an example of a
☒ A - transverse wave B - longitudinal wave C - standing wave D - stationary wave
4. The maximum distance the molecules of a medium are displaced from their rest position is the
☒ A - amplitude B - wavelength C - frequency D - speed
5. Wavelength is the distance between
A - two consecutive crests B - two consecutive troughs
C - one point to the same point on the next wave ☒ D - all of the above
6. In a given medium, if the frequency increases,
A - the wavelength increases B - the speed increases
☒ C - the speed remains constant D - the speed decreases
7. The bending of waves due to a change in speed is called
A - reflection ☒ B - refraction C - diffraction D - interference
8. The bending of waves due to double slit experiment is called
A - reflection B - refraction ☒ C - diffraction D - interference
9. The sudden change in sound due to a change in position (a fire truck) is called
A - pitch B - refraction C - diffraction ☒ D - Doppler effect

Write the word or words that best completes each statement.

1. A wave is a disturbance that transfers ENERGY.
2. In a transverse wave, the particles of the medium move PERPENDICULAR to the direction of the wave.
3. In a longitudinal wave, the particles of the medium move PARALLEL to the direction of the wave.
4. The energy of a wave can be indicated by the MECHANICAL - AMPLITUDE
ELECTROMAGNETIC - FREQUENCY
5. The distance from any point on a wave to the same point on the next wave is called WAVELENGTH.
6. Frequency is measured in HERTZ.

7. In the same medium, an increase in the frequency of a wave will cause a decrease in the WAVELENGTH of a wave.
8. When 2 waves add together to form a single wave, the type of interference is CONSTRUCTIVE
9. When 2 waves cancel each other out is an example of a pure DESTRUCTIVE wave.

Determine whether each statement is true or false. Write, "true" if it is true. If it is false, change the underlined word or words to make the statement true.

1. A medium transfers wave ~~matter~~. **FALSE ENERGY**
2. The crest of a wave is the maximum displacement upward. **TRUE**
3. Insects see using Infrared. **FALSE ULTRAVIOLET**
(INSECTS USE INFRARED)
4. A transverse wave is a series of compressions caused by a pulse. **FALSE LONGITUDINAL**
5. The distance between two consecutive crests is one amplitude. **FALSE WAVELENGTH**
6. Frequency is measured in hertz. **TRUE**
7. The bending of waves due to a change in speed is called reflection. **FALSE REFRACTION**
8. When two waves combine to subtract from each other, destructive interference occurs. **TRUE**
9. Constructive interference (wave) is produced when the crest of one wave lines up with the trough of another similar, but different wave. **FALSE DESTRUCTIVE**

Use the skills you have developed in the chapter to complete each activity.

1. Waves travel slower through a denser medium. Although water is denser than air, sound waves travel faster in water. Explain why.

MECHANICAL WAVES MOVE FASTER IN DENSER MEDIUMS BECAUSE THE PARTICLES ARE CLOSER TOGETHER SO IT TAKES LESS TIME TO TRANSFER ENERGY

2. Complete the following table.

Speed (m/sec)	Frequency (Hz)	Wavelength (m)
150	2.0	75
375	250	1.5
200	400	0.5
200	200	1.0

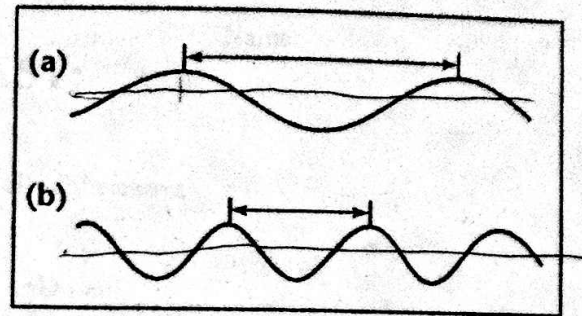
3. State the effect on the frequency and speed of a wave if the amplitude is increased; wavelength is increased; wavelength is decreased.

IF AMPLITUDE IS INCREASED - FREQUENCY + SPEED STAY THE SAME

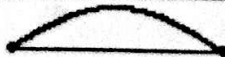


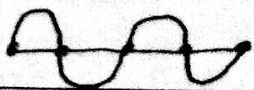
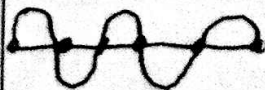
IF WAVELENGTH IS INCREASED - FREQUENCY IS DECREASED + SPEED STAYS THE SAME

IF WAVELENGTH IS DECREASED - FREQUENCY IS INCREASED AND SPEED STAYS THE SAME

B



A LADY
TANNING IN THE
SUN GETS WARM

# of Nodes	# of Wavelengths (λ)	Frequency (Hz)	Period (s)	Pattern: For 1s
2	0.5	0.5	2	
3	1	1	1	
4	1.5	1.5	0.66	
5	2	2	.5	
6	2.5	2.5	0.4	
7	3	3	0.33	